

DT05 Rec'd PCT/PTO 21 JAN 2005

MACHINE TOOL WITH A TOOL SHANK AND A CUTTING HEAD

ABSTRACT OF THE DISCLOSURE

The invention relates to a machine tool with a tool shank and a cutting head made from different materials, which are joined to each other on opposite joint surfaces in a positive material fit by means of a joint layer made of a ductile solder material. According to the invention, in order to obtain a solder connection which is substantially stress-free, powder particles made of a temperature-resistant material with a thermal expansion coefficient which is lower than the solder material are embedded into the joint layer and the density of the powder particles varies along the entire thickness of the joint layer.